#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

### WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015039 Address: 333 Burma Road **Date Inspected:** 23-Jun-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Segment

#### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

**OBG Trial Assembly Yard** 

Segment 9BE/9CE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as BP125-001-026. The welder is identified as #220066 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-B-U2-F.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as BP071-001-026. The welder is identified as #222396 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-B-U2-F.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBE9-009. The welder is identified as #220063 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231T-1.

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This QA Inspector observed the removal of fit up plates from the exterior of the Bottom Plate by flame cut along the transverse CJP segment splice.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as Wu Zhi Cheng and Zhou Peng. QA Inspector observed QC Inspectors verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 9CE

This QA Inspector observed Heat Straightening in progress of BP126A following HSR(B)-374.

Counter Weight Assembly 56

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing at locations of removed lifting lugs from the top panel.

Lift 7 and 8 West

This QA Inspector observed grit blasting in progress on the exterior of the lift.

**QA** Verification

Segment 7BE

This QA Inspector observed Final Bolt tension verification on A325 high strength bolts on the following components:

FL3 Bottom Panel to FL3 flange and Bottom Plate at panel points 50, 51 and 52.

Bolts verified:

M24x60 DHGM240014

M24x65 DHGM240013

M24x70 DHGM240075

During Final Bolt tension verification this QA Inspector observed a washer of an M24x70 bolt assembly had failed. The bolt assembly was removed and replaced. The location of the bolt assembly was at the FL3 bottom panel to Bottom Plate connection east of panel point 51.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer